Catalogue of American Amphibians and Reptiles.

FRANZ, RICHARD, AND CHARLES J. CHANTELL. 1978. *Limnaoedus, L. ocularis*.

Limnaoedus Mittleman and List
Little grass frog

Limnaoedus Mittleman and List, 1953:80–83. Type-species, *Limnaoedus ocularis* (=*Hyla ocularis* Bosc and Daudin, 1801), by original designation.

• CONTENT. One species, *L. ocularis*.

• DEFINITION. Snout-vent length 11–20 mm. Head pointed, a dark band running laterally through each eye onto body. Digits with well-developed discs but little webbing. Vomer reduced, edentate; sphenethmoid with postero-ventral aspect notched to receive parasphenoid; squamosal L-shaped, articulating only with quadratojugal and quadrate cartilage; hyoid body longer than wide, uncalcified; mentomeckelians reduced, wedge-shaped; omo- and xiphisternae uncalcified; urostyle lacking neural spine, posterior aspect of neural canal slopes anteriad; ilium with wide, square subacetabular expansion and low ilial shaft ridge.

• DESCRIPTION, ILLUSTRATIONS, DISTRIBUTION, FOSSIL RECORD, PERTINENT LITERATURE. See species account.

• ETYMOLOGY. "*Limnaoedus* is derived from the Greek λίμνη (marsh) + αοιδός (singer)," (Mittleman and List, 1953). The name is neuter in gender.

• REMARKS. The ancestral relationships and/or osteological similarities of *Limnaoedus* have been ascribed to *Pseudacris* (Mittleman and List, 1953), *Hyla* (Chantell, 1973), and *Acris* (Lynch, 1963; Chantell, 1968; Gaudin, 1974). Gaudin (1974) presented the best evidence for the validity of the genus and its phenetic similarity to *Acris*.

Limnaoedus ocularis (Bosc and Daudin)
Little grass frog

Hyla ocularis Bosc and Daudin, *in* Sonnini and Latreille, 1801:187. Type-locality, "Carolina," no holotype known. Restricted by Harper (1939:140) to "the vicinity of Charleston, S.C."
Hyla oculata Daudin, 1802, pl. 4, fig. 2 (name on plate only).
Calamita ocularis: Merrem, 1820:172.
Auletris ocularis: Wagler, 1830:201.
Hylodes ocularis Holbrook, 1838:79, pl. 14. Type-locality, "South Carolina and Georgia." No holotype designated.
Chorophilus angulatus Cope, 1875:30. Name appears without explanation but apparently represents a substitute name. Cope (1889) lists it in synonymy of *Chorophilus ocularis*.
Cystingnathus ocularis: Cope, 1875:30. Name appears without explanation in conjunction with *Chorophilus angulatus*.
Chorophilus ocularis: Boulenger, 1882:333.
Pseudacris ocularis: Stejneger and Barbour, 1917:31.
Limnaoedus ocularis: Mittleman and List, 1953:80–83.

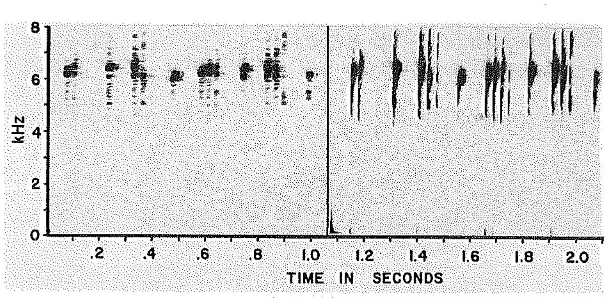


FIGURE. Audiospectrogram of mating call of *Limnaoedus ocularis*: near Micanopy, Alachua County, Florida, 26 January 1976, water 15°C; narrow band (45 Hz) filter left, wide band (300 Hz) right. Florida State Museum Bioacoustics Archive.

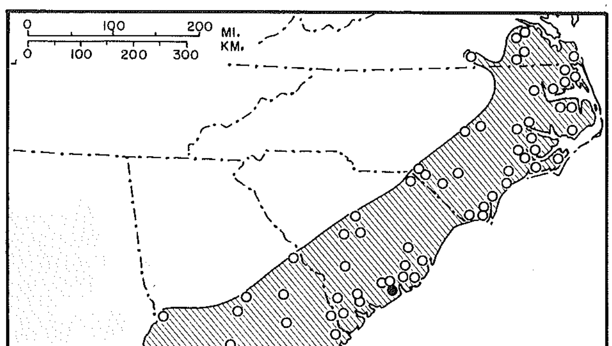
• CONTENT. No subspecies are recognized.

• DEFINITION. See generic account.

• DESCRIPTIONS. External morphology in adults was adequately described by Harper (1939), Wright and Wright (1949), and Conant (1975). The skeleton, or parts thereof, was discussed with increasing detail by Noble (1923), Mittleman and List (1953), Lynch (1963), Chantell (1968), and Gaudin (1974). Gaudin (1974) emphasized cranial morphology. Tadpoles and/or eggs were described by Wright (1932), Wright and Wright (1949), and Gosner and Rossman (1960). Blair (1958, 1959) analyzed the mating call, and Harper (1939) and Wright and Wright (1949), among others gave written descriptions of the voice. Chantell (1973) examined whole-body proteins and the chromosome complement ($2n = 24$).

• ILLUSTRATIONS. Photographs or drawings of adults are in Holbrook (1838), Noble (1931), Wright (1932), Harper (1939), Wright and Wright (1949), Conant (1975), and Mount (1975). Skeletal elements are illustrated in Noble (1923), Lynch (1963), Chantell (1968), and Gaudin (1974). Illustrations of eggs and tadpoles are in Wright (1932), Wright and Wright (1949), and Gosner and Rossman (1960). Mittleman (1946) presented Daudin's original illustration of *Hyla ocularis*.

• DISTRIBUTION. *Limnaoedus ocularis* occurs in the Coastal Plain, from southeastern Virginia to southern Florida (record from Key West, Monroe County, Florida, in Harper [1935] doubted by Duellman and Schwartz [1958]), westward in Georgia to the Chattahoochee River, to Houston County in Alabama, and in the Florida panhandle. Texas specimens reported by Burt (1936) were reexamined by C. F. Walker and identified as *Pseudacris triseriata* (J. A. Peters, pers. comm. 1972, determination verified by Chantell). Burt's record (1936) from Mississippi is thought incorrect; the species should not be considered part of this state's herpetofauna (Altig, pers. comm. 1972). Gorman's (1962) record for Tennessee was later invalidated (Gorman, 1963). Other literature includes: Virginia (de Rageot, 1969); North Carolina (Harper, 1935; Brandt, 1936; Depoe et al., 1961); South Carolina (Chamberlain 1939; Harper, 1939; Jopson, 1940); Georgia (Wright, 1932; Harper, 1939; Neill, 1947; Martof, 1956, 1963; Goodman, 1958; Gosner and Rossman, 1960); Florida (Harper, 1935; Carr, 1940a; Einem and Ober, 1956; Blair, 1958; Duellman and Schwartz, 1958; Gosner and Rossman, 1960); and Alabama (Mount, 1975).



MAP. The solid symbol marks the type-locality; open symbols indicate other localities.

• FOSSIL RECORD. None.

• PERTINENT LITERATURE. General accounts are in Wright (1932), Harper (1939), Carr (1940a), Wright and Wright (1949), Duellman and Schwartz (1958), Conant (1975), and Mount (1975); of these Wright (1932) provided the most extensive natural history account. Carr (1940b) noted the earliest appearance of breeding choruses in Florida; Yamaguti (1961) listed parasites; Hunsaker and Johnson (1959) noted the pigmented testes; and Goin (1958) provided tooth count on maxillae. Bachman et al. (1966) and Goin et al. (1968) gave values for relative amounts of nuclear DNA. Neill (1958) reported *Limnaoedus* from brackish water.

• NOMENCLATURAL HISTORY. Confusion has existed over the authorship of *Limnaoedus ocularis* since its original description. Daudin presented a description of *Hyla ocularis* in Sonnini and Latreille (1801); however, Daudin stated that he had before him a manuscript by Bosc, in which Bosc not only described *ocularis* but also proposed the name *Hyla ocularis* (Daudin, 1802:12, 33; 1803:68–69). Harper (1939, 1940) proposed to credit both Bosc and Daudin with the frog's authorship, based on the circumstances discussed above. Mittleman (1946) disagreed, suggesting that Bosc and Daudin's *Hyla ocularis* was actually *Acris gryllus* and considered Holbrook the author of *ocularis*. Schmidt (1953) used Harper's arrangement.

• ETYMOLOGY. The meaning of *ocularis* is from the Latin "eye," possibly pertaining to the ocular stripe.

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